

Business and the Environment

ENV 163

Session 1 Introduction

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My research: How can we use information to change individual and corporate behavior?

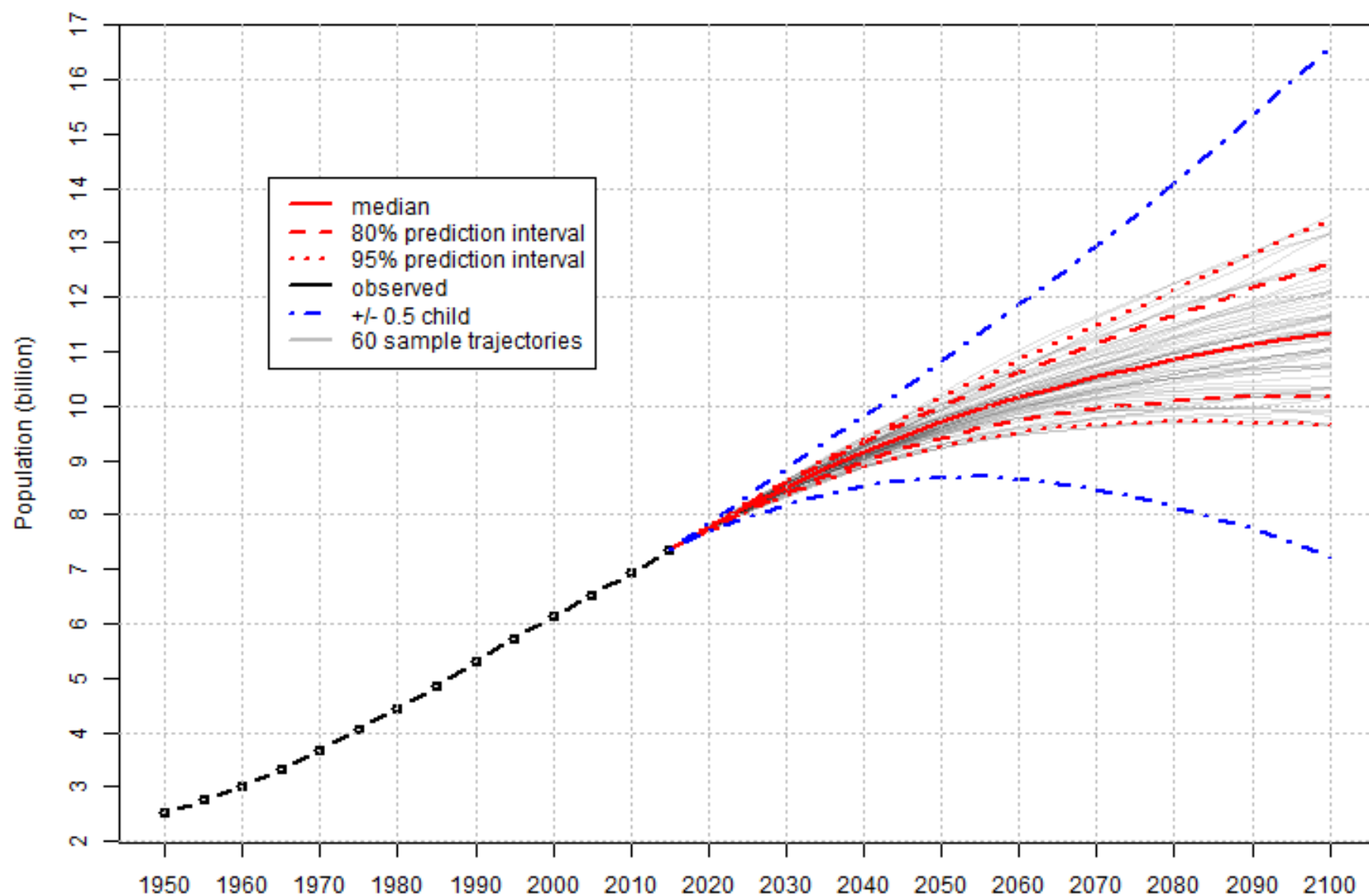


How would you define sustainability?

Sustainability

- Sustainable Development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs”
 - (World Commission on Environment and Development, 1987)
- **Corporate sustainability** is an approach aiming to create long-term stakeholder value through the implementation of a business strategy that focuses on the ***ethical, social, environmental, cultural, and economic*** dimensions of doing business.
- Corporate Sustainability vs Corporate Social Responsibility (CSR)

WORLD: Total Population



Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>



What are negative externalities?

Negative externalities

- Externalities

- Externality is a cost or benefit, not transmitted through prices, incurred by a party **who did not agree** to the action causing the cost or benefit.
 - Fire-proofing a home improves the fire safety of neighbors
 - Individuals who are vaccinated reduce the risk of contracting the relevant disease for all others around them

- Negative Externalities

- Occur when the consumption or production of a good causes a harmful effect to a third party.
 - Production of chemicals that cause pollution, then local fishermen will not be able to catch fish. Loss of income is the negative externality.

Market failures

- Pre-requisite of the adequate functioning of markets:
Well-defined ownership rights
- Because environmental resources are available to all, these rights are difficult to assign
- Left alone the market mechanism generates too much pollution

What are some of the traditional solutions to deal with negative externalities?

Solutions?

- Government intervention is legitimate
- Regulation, taxation, pollution permits
- Cap and Trade
 - Governments distribute or sell 'pollution permits' corresponding to the total amount of tolerable or allowable pollution.
 - Permits can be sold and purchased on the market
 - Acid Rain Program, RECLAIM, Chicago Climate Exchange, EU Trading program

Does it pay to be green?

Neoclassic perspective

- Market cannot Trade-off between social benefits of a healthy environment and private cost to business
- Environment associated with a cost increase for companies
- Devoting resources to environmental management detracts from profit maximization (Friedman, 1970)

Win-Win perspective

- Firms can generate competitive advantage through proactive environmental strategies

The Importance of a Sustainability Strategy



Kiron, D., Unruh, G., Reeves, M., Kruschwitz, N., Rubel, H., & ZumFelde, A. M. (2017). Corporate sustainability at a crossroads. *MIT Sloan Management Review*, 58(4). [[Link](#)]

How can firms generate profit from sustainability?

Give 3 examples of how firms can generate profit from sustainability

PAULINE VAN DONGEN





[Awair](#)

Evoware
Biodegradable Packaging Made From
Seaweed



FUTURE MEAT TECHNOLOGIES

OUR TECHNOLOGY

ABOUT US

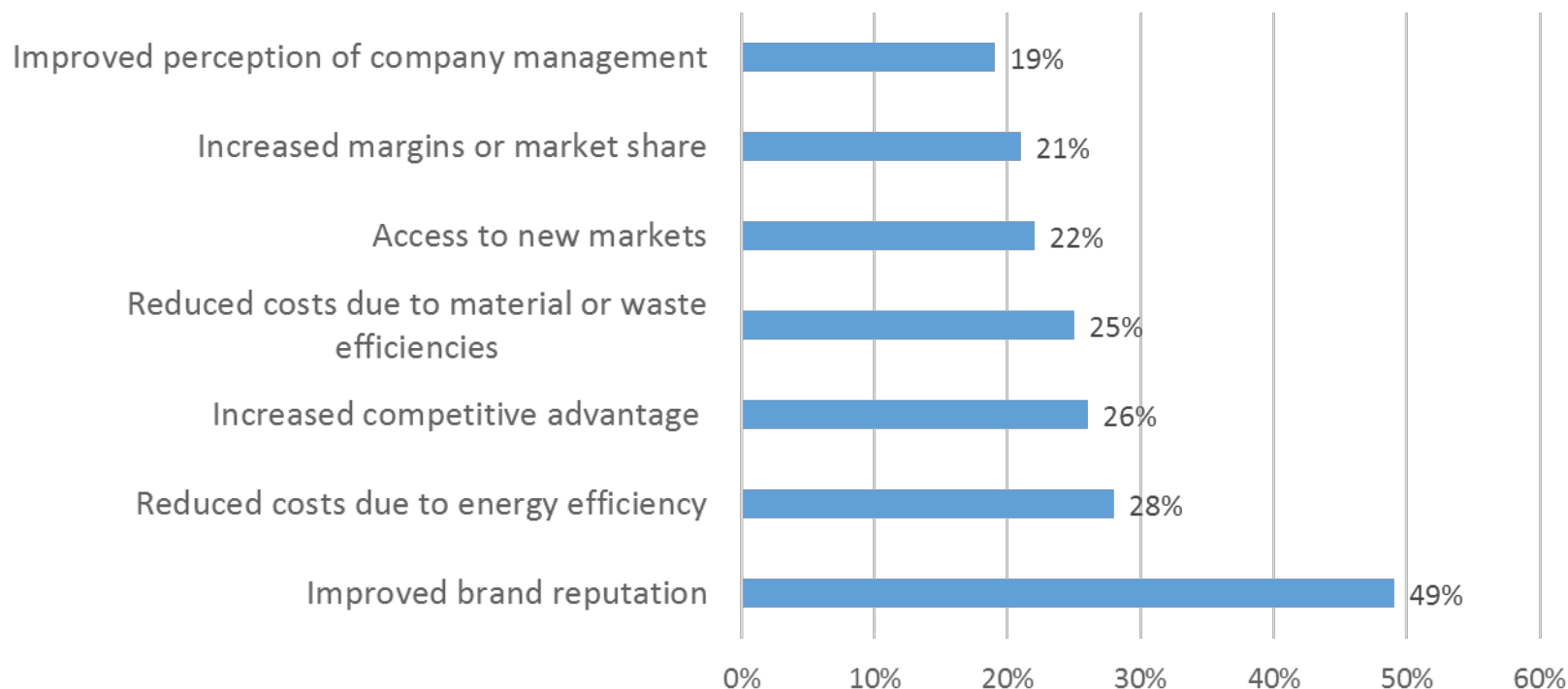
CONTACT & LOCATION

Future Meat Technologies

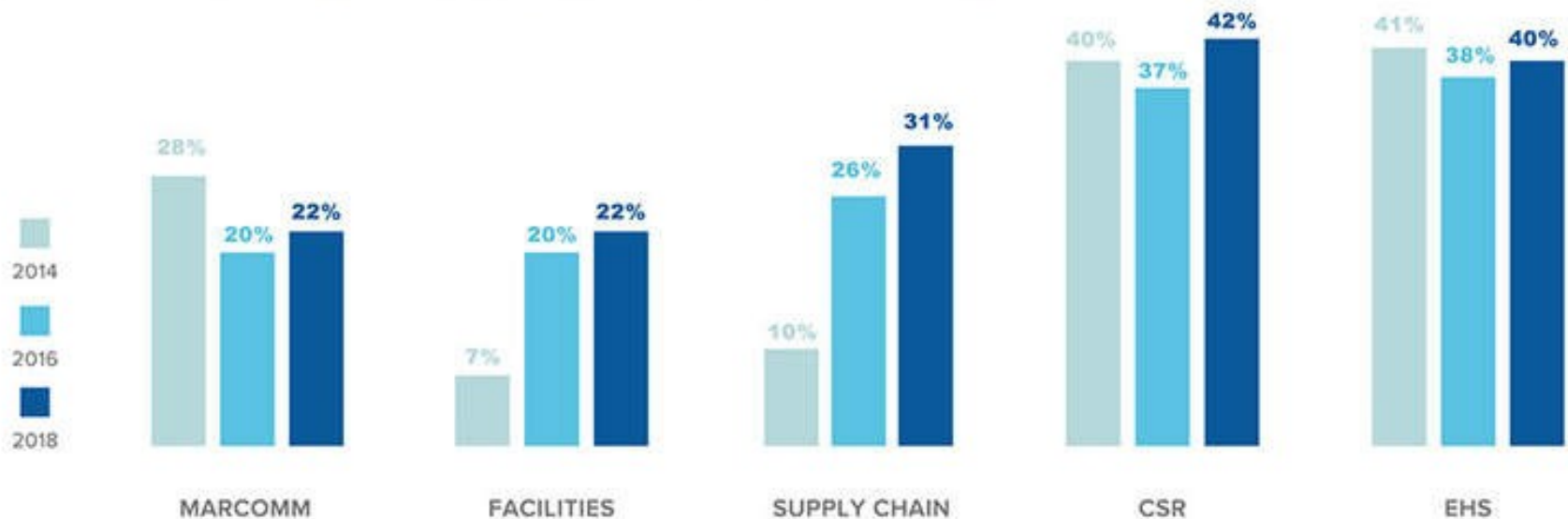
Animal Free, Earth Friendly

Future Meat

What are the greatest benefits to your organization in addressing sustainability?



DOES YOUR ORGANIZATION CURRENTLY HAVE ONE OR MORE DEDICATED SUSTAINABILITY RESOURCES EMBEDDED IN ANY OF THE FOLLOWING DEPARTMENTS (EITHER FULL-TIME OR PART-TIME)?

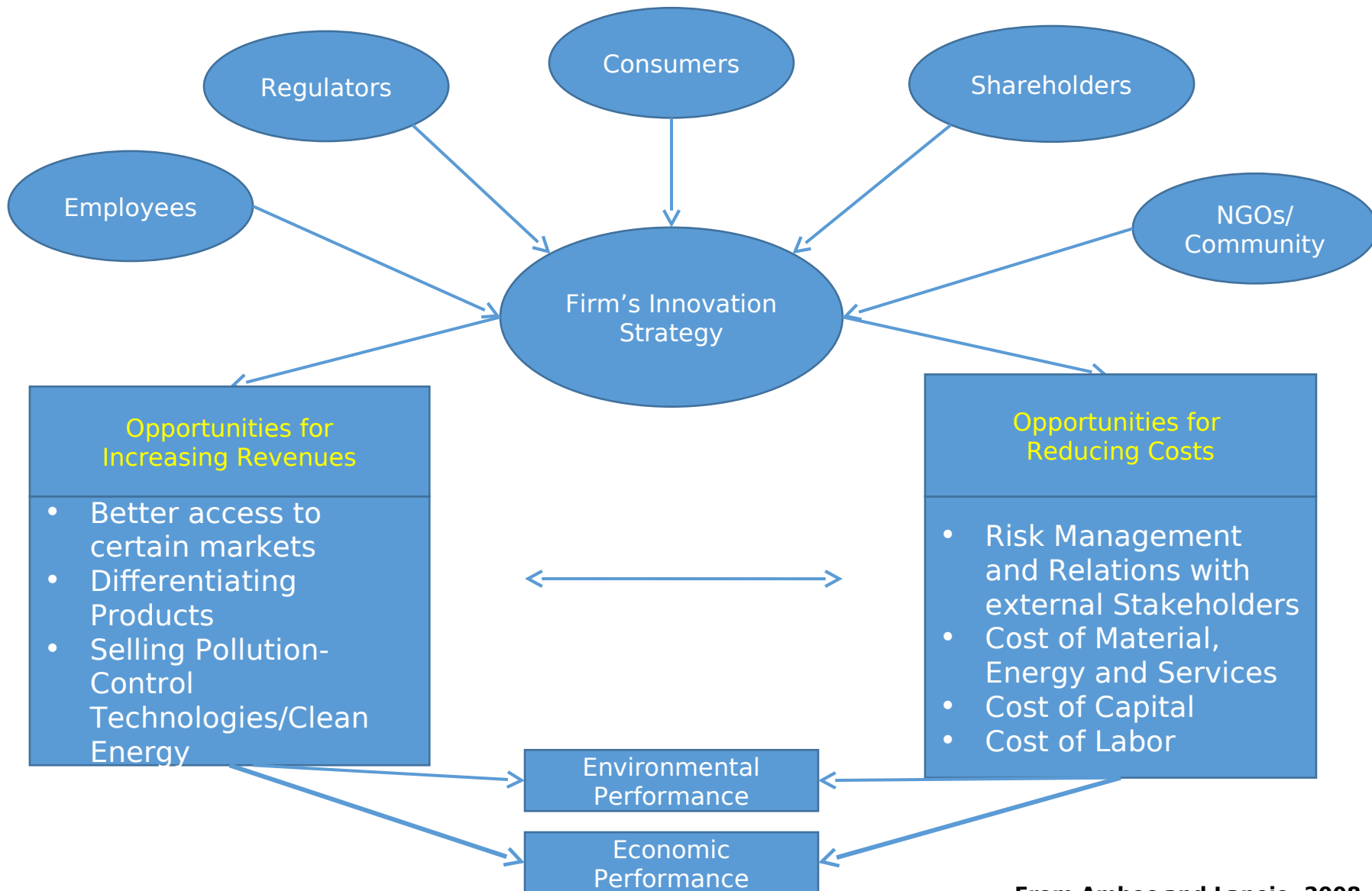


Greenbizz. The State of the Sustainability Profession, 2018

The Chief Sustainability Officer

- Chief sustainability officers are business veterans who are good at leading new initiatives and cross-functional teams, and who understand how to translate external factors into internal opportunities.
- Ninety percent of CSOs are one or two steps removed from the CEO
- *How Chief Sustainability Officers reached the C-Suite? Weinreb Group* [Link]
- CSO the Back Story. Weinreb Group [Link]
- *What Do Chief Sustainability Officers Actually Do? The Atlantic* [Link]

Links between Environmental and Economic Performance



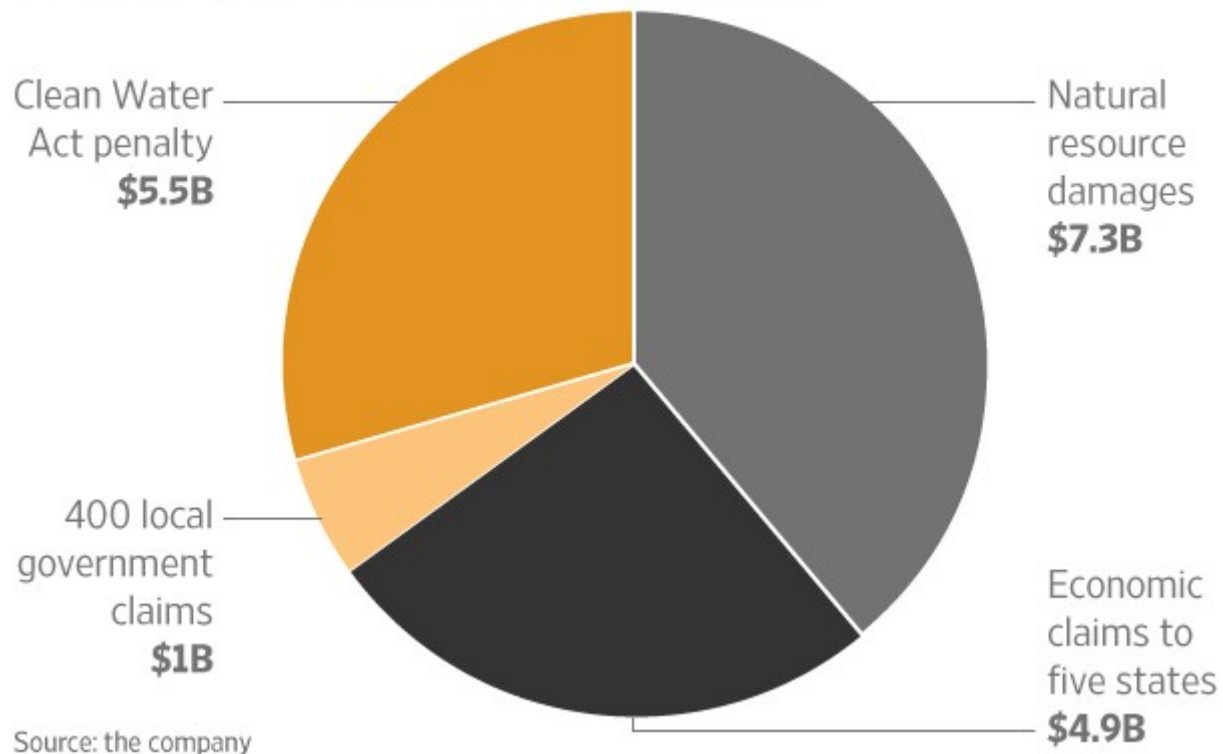
***Deepwater Horizon* oil spill- 2010**



210 million US gal; 780,000 m

- **BP Agrees to Pay \$18.7 Billion to Settle Deepwater Horizon Oil Spill Claims**
- Settlement of all federal and state claims brings total costs to nearly \$54 billion

BP's new \$18.7 billion oil-spill settlement



Mattel 2007 Toxic toys...

- Lead paint on toys

- “The concern that we increasingly have is that relatively low levels of lead exposure can lead to reductions in IQ and learning disabilities and behavioral problems.” Prof Jonathan Fielding UCLA

Boo! Snap Hair Clips
By Dollar Tree



Orange Cat
Lead: 1,427 ppm
Chromium: 681 ppm
Arsenic: 171 ppm

Lightning McQueen Racing Chair
By Disney

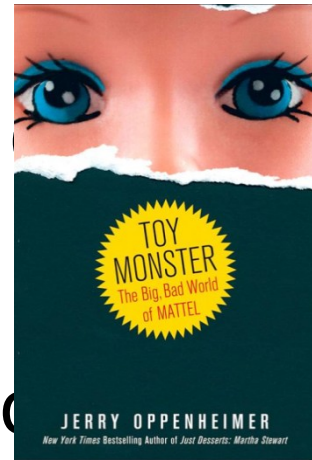


Seat
Bromine: 14,905 ppm
Mercury: 39 ppm

Base
Bromine: 25,562 ppm
Lead: 34 ppm
Mercury: 156 ppm

Mattel recalled nearly 19 million toys...

- 2008: Mattel and Fisher-Price agreed to pay \$12 million to 39 states to settle an investigation into the lead-tainted toys.
- 2008: Mattel also agreed to pay a \$2.3 million civil penalty to the Consumer Product Safety Commission for violating the lead paint ban.
- 2009: \$50 million settlement for vouchers and cash payments to consumers.

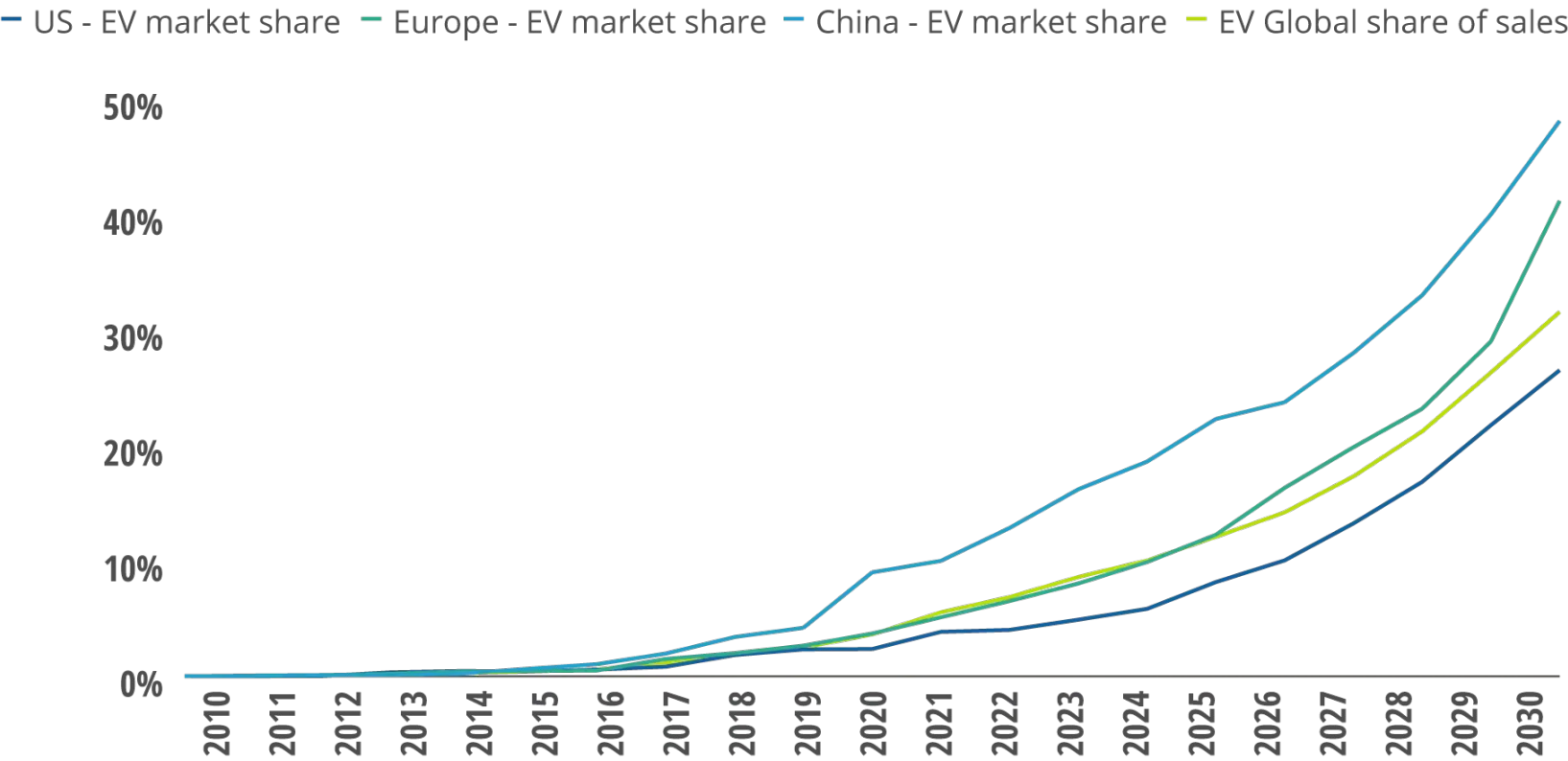


Cost reductions

- Discovery of unexploited cost savings
 - Pollution associated with a waste of resources (raw material, energy etc...), firms systematically ignore profitable opportunities.
 - Reduction of pollution often associated with improving productivity
 - Dow Chemicals Waste Reduction Always Pays (WRAP) program, net value of project \$1 billion
 - Interfaces
- Cost of Capital
 - Green mutual funds
 - Assets in US socially screened funds \$12 Trillion
 - 1 out of 4 dollars under professional management involved in SRI
- Increase productivity
 - Recruit and retain high level employees with personal environmental convictions

FIGURE 3

Outlook for EV market share by major region



Source: Deloitte analysis, IHS Markit, EV-Volumes.com¹⁷

Differentiating products



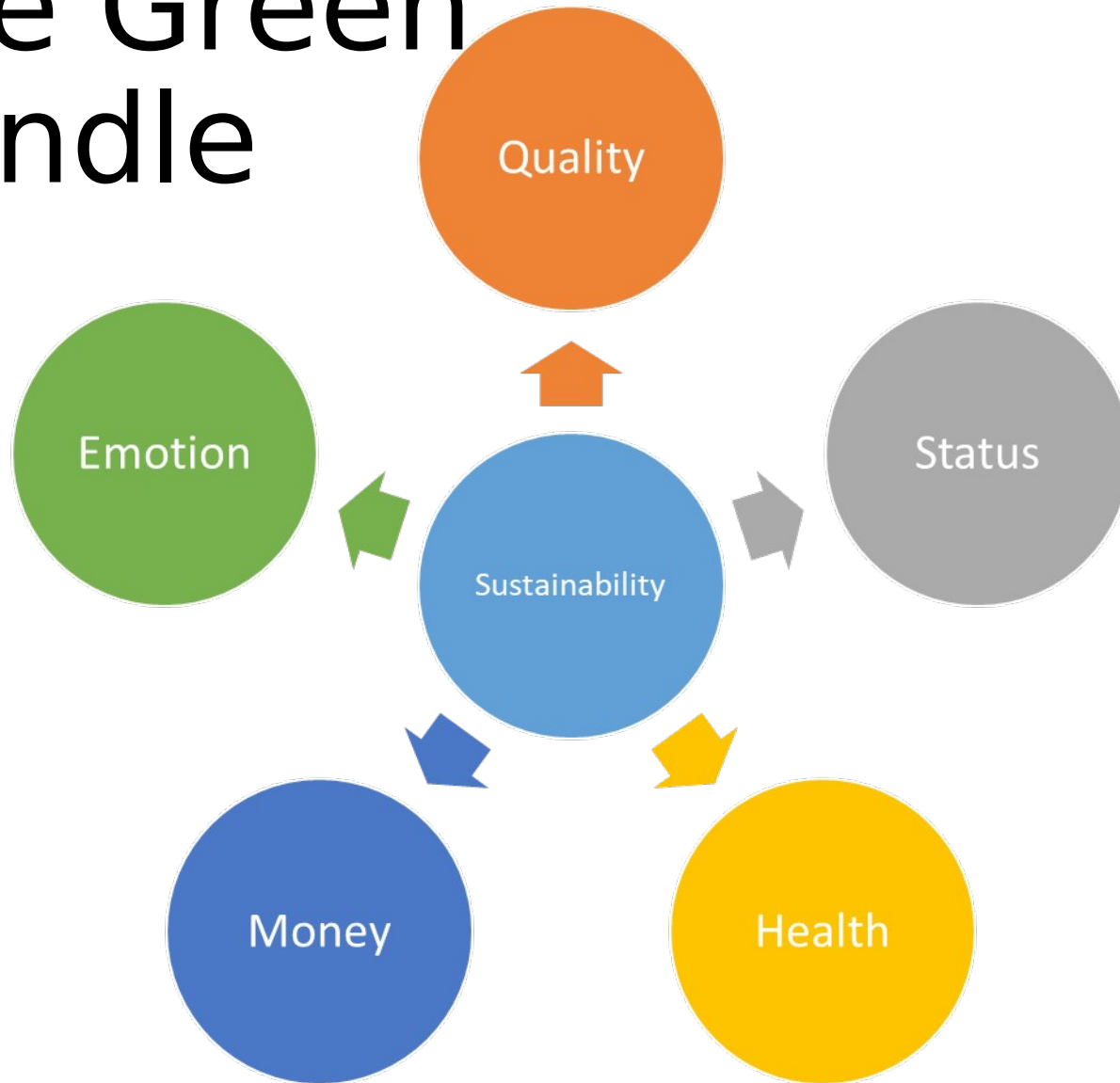
- Bundle public good with private consumption benefit (Patagonia)

Green consumer categories

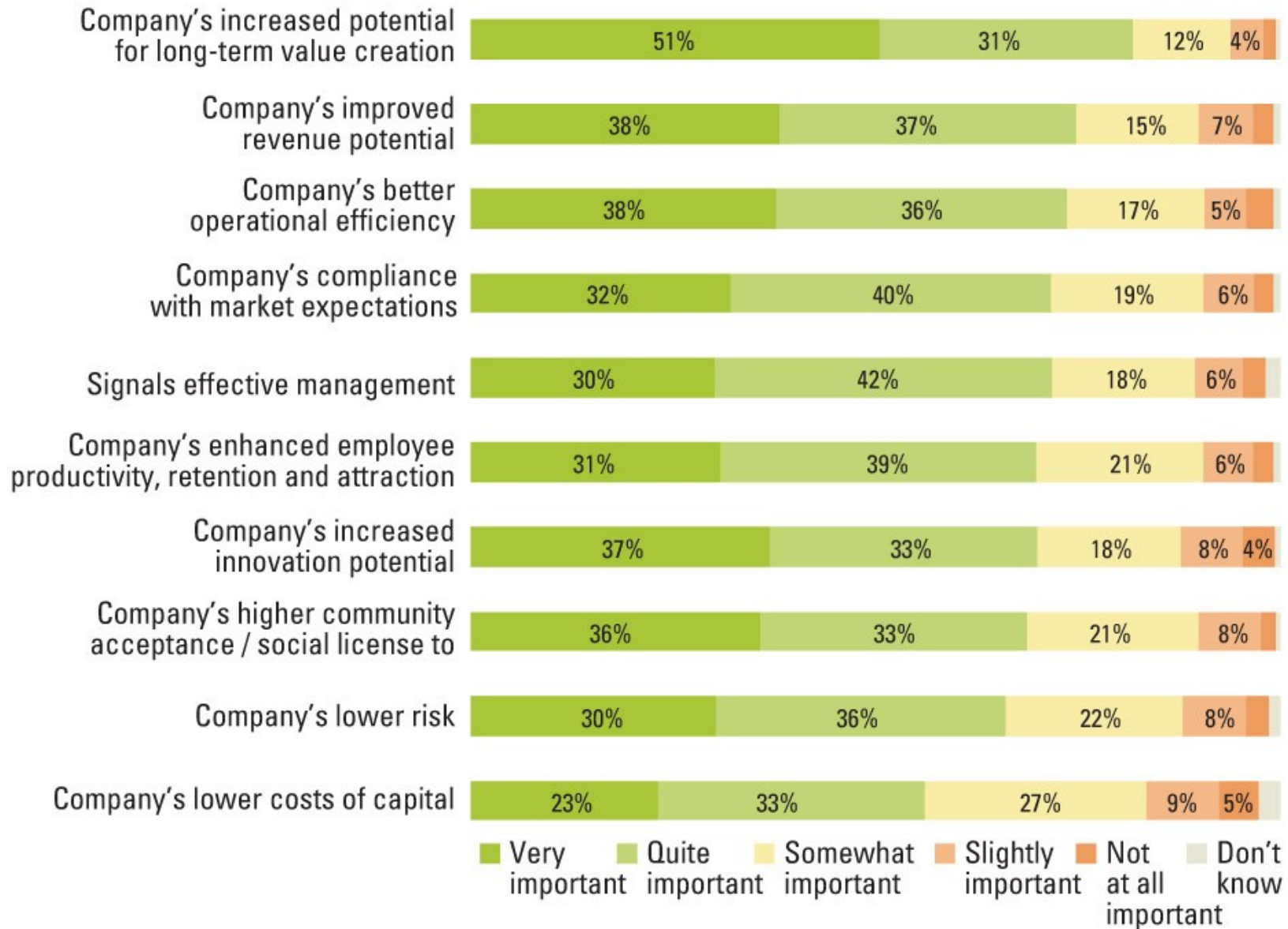
Dark Green Consumers	Light Green Consumers	Excuse-makers	Brown Consumers
<ul style="list-style-type: none"> ■ True Blue Greens, Greenback Greens (Coddington 1990) ■ Committed Environmentalist (McEachern 2002; Glig et al. 2005) ■ Vocal Activists, Principled Pioneers (Tiltman 2007) 	<ul style="list-style-type: none"> ■ <i>Sprouts</i> (Coddington 1990) ■ Conceivables (McEachern 2002) ■ Mainstream Environmentalists (Glig et al. 2005) ■ Conveniently Conscious (Tiltman 2007) ■ Aspirants, Adjusters 	<ul style="list-style-type: none"> ■ Grouzers (Coddington 1990) ■ Non-believers, Buck-passers (Brown and Wahlers 1998) ■ Occasional Environmentalists (Glig et al. 2005) 	<ul style="list-style-type: none"> ■ Basic Browns (Coddington 1990) ■ Complacents (McEachern 2002) ■ Non-environmentalists (Glig et al. 2005) ■ Onlookers (Tiltman 2007) ■ Avoiders (Chitra 2007)



The Green Bundle



Why is a company's good sustainability performance important to your firm when making investment decisions?



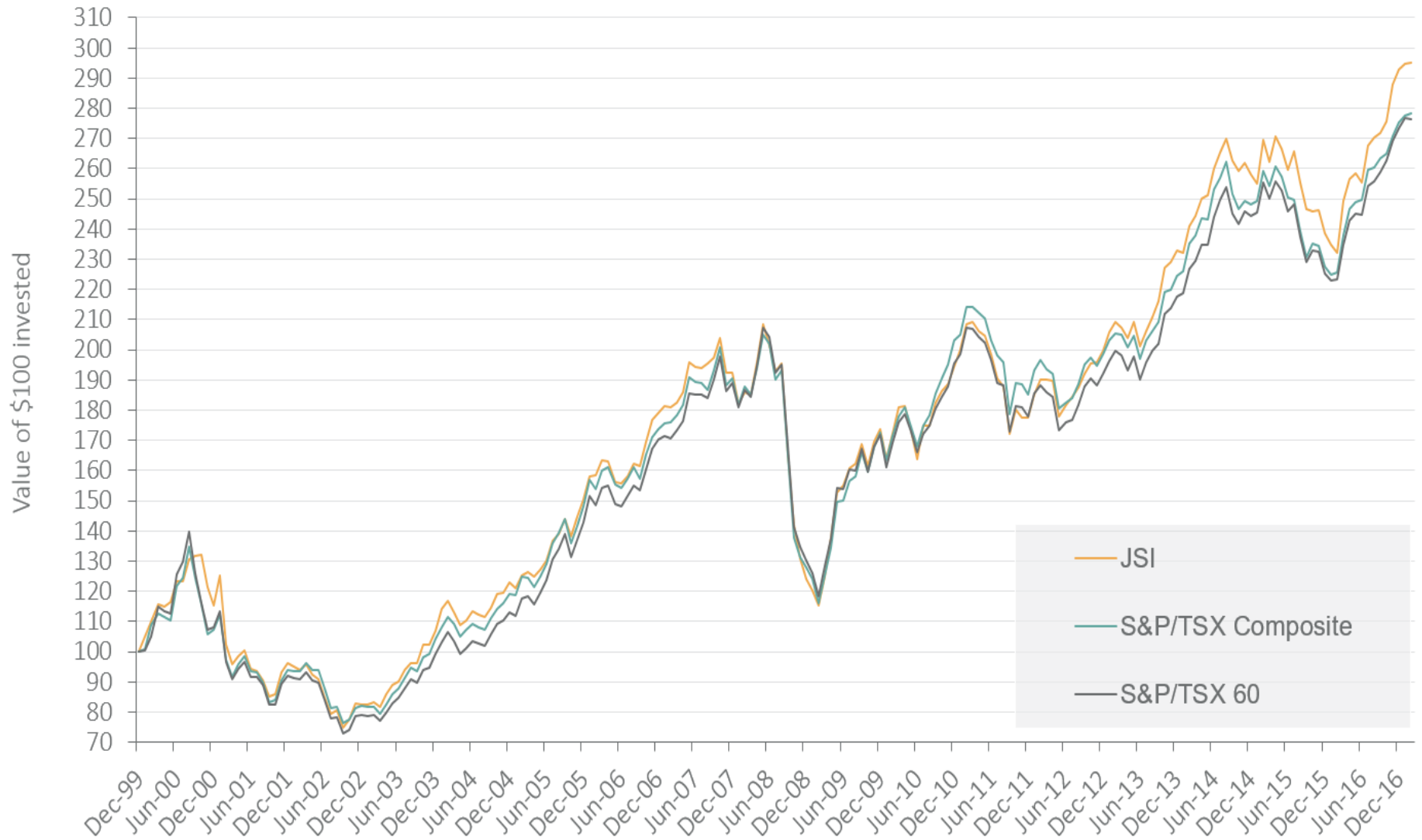
Unruh, G., Kiron, D., Kruschwitz, N., Reeves, M., Rubel, H., & Zum Felde, A. M. (2016). Investing for a sustainable future: investors care more about sustainability than many executives believe. *MIT Sloan Management Review*, 57(4).

Investing in Sustainability Has Not Meant Sacrificing Return



Sources: FactSet, HSBC, MSCI

Comparative Returns: January 2000 - February 2017



PwC planning to hire 100,000 over five years in major ESG push



06-15-2021
[Link](#)

Teaching method

- Case discussion (Walmart...)
- Simulation (Fishbanks)
- Lecture/discussion
- Group project
- **Be on time**

Class Topic	Assignments
Introduction to the Class	Please read assigned articles and syllabus before class
Fishbanks Strategic Game	
The Tragedy of the Commons and Collective Action	Individual assignment #1.
The regulatory context of firms' strategies: The case of climate change -	
The Market for Green Products	
Life Cycle Assessment (LCA) – Alpha Motors Case Study	
Life Cycle Assessment (LCA) (2)	Final project overview (1-page)
Environmental Differentiation, Marketing and Entrepreneurship - Tesla Motors Case Study	
Environmental Ethics – Volkswagen Diesel Case Study	
The Design of effective Eco-Labels	Individual assignment #2
Environment, Operations and Supply Chain Management - Walmart Case Study	
Corporate Environmental and Financial Performance -	
Sustainability Ratings –	Group assignment #1
Sustainability Reporting –	Group assignment #2
Materiality analysis KDP case study	
Environmental and Social Governance (ESG) Recap	
Corporate Social Responsibility (CSR) and Employee Engagement –	Individual Assignment #3
Energy Efficiency Strategies. How to motivate people and businesses to conserve energy?	
Thanksgiving NO CLASS	
Energy and Entrepreneurship – Simulation Game.	FINAL REPORT DUE
Final session - In class presentations of final group projects	2-3 presentations

Grading

- There will be no final exam.
- The final grade will be determined as follows:
- Group Presentation and group assignment 30% (Class Participation, Blog, Presentations, CCLE Quizzes)
- Individual Write-Ups 40% (3)
- Group Project 30% (Final report and presentation)

Linkedin

- <https://www.linkedin.com/groups/12294753/>
- Each week 1 group will blog about any subject or event related to the theme of the week
 - Sign on to Linkedin and establish a profile
 - Sign on on the Business Sustainability Group





din.com/in/magali-maggie-delmas-76296b22/

Unique: Luxembour...




BLS International Se...



Online Indian Visa F...




Rent Apartment in...



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Magali (Maggie) Delmas

Professor of Management & Sustainability, Author of "The Green Bundle: Pairing the Market with the Planet"


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About

Magali (Maggie) Delmas conducts research in Strategy and Corporate Sustainability, and has published more than 90 articles, book chapters and case studies on the subject. She works on developing effective information strategies to promote conservation behavior and the development of green markets. Her latest book: "The Green Bundle" — see more


Featured



Helping the Environment Is Nice. Helping Yourself Is OK, Too.

Zivako Public Square


Homo sapiens are hardwired to consume, a habit that's taking a heavy—and potentially...



The Green Bundle: Pairing the Market with the Planet | Magali A. Delmas with David...

sup.org

The market for green products has expanded rapidly over the last decade, but most...



The Convenient ...

YouTube

Being green is no... There are many re...

Your Dashboard

Private to you



690 Who viewed your profile	19,678 Post views	216 Search appearances
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CEO & Co-Founder Plastic Pollution Coalition



John Manley, M.S.
· 1st
Shark Biologist/Conservationis...



Lisa Kaas Boyle · 1st
Environmental Attorney

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Final project

- Each group (of four to 4 members) will produce a final report analyzing the link between the business strategy and the corporate strategy of a firm of your choice.
- Imagine that a company has hired you as a consultant and that you need to provide recommendations to the CEO on how to adopt a "successful environmental strategy."
- <https://public.tableau.com/app/profile/open.for.good.platform>

Tuesday: Fishbanks simulation game

- *"How can we manage the fishing industry to maximize income while sustaining the fish population for the long term?"*
- Tutorial:
<https://mitsloan.mit.edu/LearningEdge/simulations/fishbanks/Pages/Video.aspx>

Game objective

- You are the owner of a small fishing company
- You are competing against two other companies
- Game objective: to make as much money as possible.

10 year Game

- Each year, you will decide **how many ships to send** to each of two fishing areas
 - Deep sea
 - Coastal sea
- You can **build ships** to increase your fleet, but these ships will not be **available until the following fishing year.**
- The competing companies also fish each year.

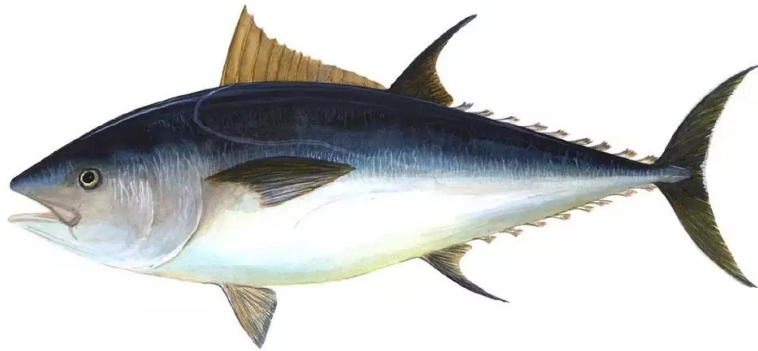
Fishbanks' decisions

- Decision 1: get additional ships?
 - Order ships to be built (take 1 year)
- Decision 2: how to divide ships among:
 - Coastal fishing area
 - Deep fishing area
 - Harbor

Criterion of Success

Maximum possible assets at the end of the game

Bank Balance

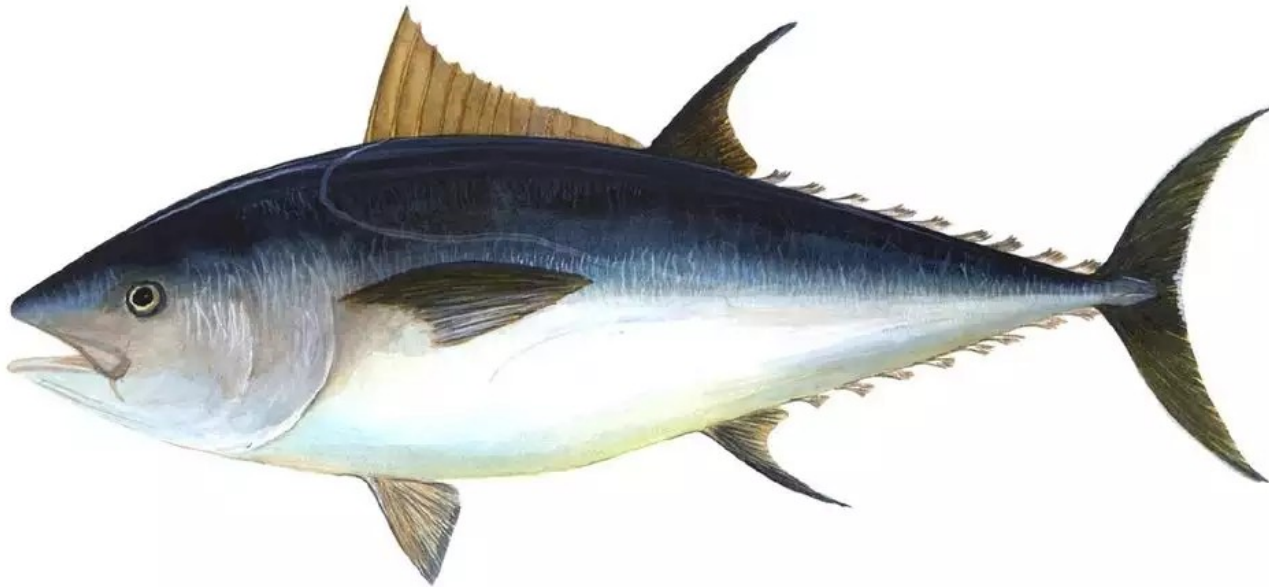


Boat Salvage value



Catch

Influenced by:
Number of Ships
Ship Effectiveness
Weather



Profit

Income

- Selling your fish catch at \$20 per fish
- Selling your ships to other companies at negotiated price
- Earn 10% interest on your bank account when bank balance > 0

Expenses

- Buying ships
- Ordering new ships \$300
- Cost of operating ships in fishing areas or harbor
- 15% interest on loans when bank balance < 0

Your Goal is to **Maximize your
Net Worth at the end of the
game**

Net Worth = Bank Balance +
Value of Fleet